



**Nuclear is  
good for you.**



# **ANS** Winter Meeting

**November 15-19, 2020**

## **Honors and Awards Recipients**





# American Nuclear Society

## ANS Opening Plenary Session Awards

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Monday, November 16  
10:00 am-12:30 pm (EST)

### AWARD RECIPIENTS

#### **Presentation Of Awards**

Dr. H.M. Hashemian  
Honors and Awards Committee Chair

#### **ANS Fellow Inductions**

##### **Seaborg Medal**

##### **E. Gail de Planque Medal**

##### **Mary Jane Oestmann Professional Women's Achievement Award**

##### **Landis Public Communication and Education Award**

##### **Young Members Advancement Award (YMG)**

##### **Young Member Excellence Award (YMG)**

## Division Acronyms

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**ETWDD - Education, Training and Workforce Development Division**

**NISD - Nuclear Installations Safety Division**

**IRD - Isotopes and Radiation Division**

**THD - Thermal Hydraulics Division**

**RPSD - Radiation Protection & Shielding Division**

**YMG - Young Members Group**

# Plenary Session Awards

## ANS Fellows

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*Presented to:*  
**Dr. David L. Aumiller**  
**BMPC**

For innovative and significant contributions in the development, verification, qualification, and application of advanced nuclear reactor safety analysis methods and codes; increased fundamental knowledge of thermal hydraulic processes; and the development of advanced code coupling methodologies.

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*Presented to:*  
**Dr. J. Rory Kennedy**  
**Idaho National Laboratory**

For transforming the way research and development for nuclear fuels and materials is conducted. His influence, leadership, and tireless advocacy for researchers have significantly impacted the global nuclear energy enterprise.

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*Presented to:*  
**Dr. Karen Vierow Kirkland**  
**Texas A&M University**

For significant research contributions in two-phase flow, condensation heat transfer, and severe accident phenomena in nuclear reactors to improve understanding of nuclear reactor performance, reactor safety, and severe accident management strategies, along with education and professional mentoring of university students.

# Plenary Session Awards

## ANS Fellows

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*Presented to:*

**Dr. David J. Kropaczek**  
**Oak Ridge National Laboratory**

For innovative development and application of computational methods to solve nuclear fuel cycle optimization problems for pressurized and boiling water reactor systems, including first-of-a-kind application of large-scale combinatorial optimization techniques related to design of fuel assemblies, core loading patterns, operating strategies, and multi-cycle planning.

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*Presented to:*

**Ms. Evelyn M. Mullen PE**  
**Los Alamos National Laboratory**

For ensuring the nation's Criticality Experimental capability and for leadership in the field of nuclear national security.

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*Presented to:*

**Prof. Lin Shao**  
**Texas A&M University**

For his contributions in understanding fundamental radiation materials science and in developing accelerator ion beam techniques and the contributions as an educator and mentor to nuclear engineering students.

# Plenary Session Awards

## ANS Fellows

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*Presented to:*

**Dr. Michael L. Zerkle**  
**Naval Nuclear Laboratory**

In recognition of distinguished and influential original research, advocacy, and scientific contributions in:

1. Development of specialized reactor physics methods incorporated into advanced reactor design
2. Meticulous and expert validation of national nuclear data libraries
3. Development of innovative thermal neutron scattering evaluation methods for advanced moderators using first-principles atomistic modeling.

## Seaborg Medal

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*Presented to:*

**Prof. Michael Z. Podowski**  
**Rensselaer Polytechnic Institute**

For long-time leadership and outstanding scientific and engineering research achievements to advance safety and efficiency of nuclear energy generation worldwide.

## E. Gail de Planque Medal

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*Presented to:*  
**Ms. Kliss McNeel**  
**Fluor Idaho**

For inspirational vision and outstanding leadership in creating ESH&Q and assurance programs integral to the safe and environmentally protective cleanup of national and international nuclear-legacy projects

## Mary Jane Oestmann Professional Women's Achievement Award

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*Presented to:*  
**Dr. Maria Okuniewski**  
**Purdue University**

For her dedication to nuclear materials research and the education and professional development of young researchers in the field of nuclear materials science and engineering

## Landis Public Communication & Education Award

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*Presented to:*  
**Mr. William G. Wabbersen, Jr.**  
**National Nuclear Security Administration**

For his origination and development of cross-cutting, innovative educational tools to introduce nuclear science concepts to tens of thousands of students of every age, through the Interactive Nucleus Display (2010), the ANS Isotope Discovery kit (2013), and culminating in the Isotopes App (2020).

## Young Members Advancement Award (YMG)

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*Presented to:*

**Ms. Lisa Marshall  
North Carolina State University**

For her significant contributions in advancing student and young members through her dedication, service, and leadership.

## Young Member Excellence Award (YMG)

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*Presented to:*

**Mr. Tim Crook  
MCR Performance Solutions, LLC**

**and**



**Mr. Matthew D. Wargon  
TerraPower, LLC**

Tim and Matt embody the ANS YMG Excellence Award with their tireless efforts in enabling young and student members toward nuclear science, engineering, and technology.



# American Nuclear Society

## ANS President's Special Session Awards

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Wednesday, November 18  
10:00-11:30 am (EST)

### **AWARD RECIPIENTS**

#### **Presentation Of Awards**

Dr. Mary Lou Dunzik-Gougar  
ANS President

#### **Presential Citations**

**Milton Levenson Distinguished Service Award**



# ANS President's Special Session Awards

## Presential Citations

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*Presented to:*  
**Chairman Kristine L. Svinicki**  
**U.S. Nuclear Regulatory**  
**Commission**

For demonstrated leadership in transforming the Nuclear Regulatory Commission during the on-going COVID-19 Public Health Emergency into a global leader in demonstrating adaptive, flexible, and innovative approaches to nuclear regulation without compromise to safety.

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*Presented to:*  
**Leah Spradley Parks**  
**U.S. Nuclear Regulatory**  
**Commission**

For outstanding leadership and efforts in advancing diversity, equity, and inclusion efforts within the nuclear community.

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*Presented to:*  
**Prof. Dan Gabriel Cacuci**  
**University of South Carolina**

For over thirty years of dedicated leadership and service as the Editor of Nuclear Science and Engineering, a peer-reviewed journal of the American Nuclear Society from 1986 through 2019.

# ANS President's Special Session Awards

## Presential Citations

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*Presented to:*

**Hon. Rita Baranwal, PhD**  
**Assistant Secretary for Nuclear Energy**  
**U.S. Department of Energy**

For the vision and leadership to drive the transformation of nuclear science and energy programs, especially the demonstration and deployment of advanced U.S. reactors, and dedication to public service and unwavering commitment to the use of nuclear technology to the betterment of mankind.

## Milton Levenson Distinguished Service Award

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*Presented to:*

**Dr. Kevin R. O'Kula**  
**Amentum Technical Services**

For demonstrated leadership, professionalism and dedication for over 38 years in the field of Nuclear Engineering supporting all aspects of DOE and NRC activities. He has authored over 40 papers and provided technical leadership to numerous ANS Programs and conferences. He is an industry expert in the areas of nuclear facility source term evaluations, probabilistic and quantitative risk assessment and severe accident analysis, accident and consequence analysis, source term evaluation, hydrogen safety, software quality assurance and safety analyses.

## Awards Presented Elsewhere

### Nuclear Historic Landmark

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*Presented to:*  
**Fuel Cycle Facility  
Idaho National Laboratory**

Fuel Cycle Facility with EBR-II demonstrated on-site recycle of used nuclear fuel back into a nuclear reactor.

### Nuclear Historic Landmark

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*Presented to:*  
**Tokamak Fusion Test Reactor  
Princeton Plasma  
Physics Laboratory**

For demonstrating significant fusion energy production and tritium technologies for future nuclear fusion power plants and the first detailed exploration of magnetically confined deuterium-tritium fusion plasmas.

### Local Section Meritorious Award

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*Presented to:*  
**Idaho Local Section  
Best Section Overall**

Winner is all four categories:

Membership,  
Meetings & Programs,  
Public Information & Education, and  
Section Management

## Standards Service Award

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*Presented to:*

**Dr. George Flanagan  
Retired, Oak Ridge  
National Laboratory**

In recognition of his outstanding contributions to ANS standards, serving as chair and member of the Standards Board, chair of the Research and Advanced Reactors Consensus Committee, and chair and member of multiple standards working groups. In particular, his valuable guidance and insightful vision have anticipated many standards needs as technology has advanced.

## Standards Service Award

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*Presented to:*

**Dr. N. Prasad Kadambi  
Kadambi Engineering Consultants**

In recognition of his significant contributions during more than 40 years in the development of nuclear safety standards for the American Nuclear Society and his leadership at multiple levels of the standards process, including as chair and member of the Standards Board and chair of the Risk-informed, Performance-based Principles and Policy Committee.

## Division Awards

### Mark Mills Award (ETWDD)

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*Presented to:*

**Dr. Samuel Joseph Cope**  
**North Carolina State University**

For his work entitled:  
Incremental Gains in Transuranic Activity Analysis in Air Samples for  
Radiological Emergency Response.

### Mark Mills Award (ETWDD)

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*Presented to:*

**Mr. Nathan H. Hart**  
**Los Alamos National Laboratory**

For his work entitled:  
High Order Implicit Residual-Based Spatial Discretization  
Error Estimation for  $S_N$  Neutron Transport.

### Robert L. Long Training Excellence Award (ETWDD)

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*Presented to:*

**Mr. Patrick Berry**  
**Patrick Berry Consulting, LLC**

For sustained excellence in commercial, INPO, NRC, Military and University  
Training and Education.

## Robert L. Long Training Excellence Award (ETWDD)

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*Presented to:*

**Dr. J. Wesley Hines  
University of Tennessee**

For his excellence, innovation, and leadership in nuclear engineering education and training that has supported students and industry.

## George C. Laurence Pioneering Award (NISD)

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*Presented to:*

**Mr. Stephen Ted Wood  
Idaho National Laboratory**

In recognition of his industry-leading research and development of PRA computational methods and their application in the SAPHIRE risk analysis software.

## 2020 Theos J. “Tommy” Thompson Award (NISD)

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*Presented to:*

**Mr. Dennis W. Henneke, PE  
GE Hitachi**

For leadership in the areas of PRA standards, fire PRA, multi-unit PRA, and the PRAs for UK ABWRs, PRISM, VTR, and risk-informed applications.

## 2020 Theos J. “Tommy” Thompson Award (NISD)

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*Presented to:*

**Dr. Mohammad Modarres**  
**University of Maryland**

For major contributions to the theory and practice of probabilistic risk assessment of nuclear power plants, and leadership in the development of academic programs in safety and reliability.

## Radiation Science and Technology Award (IRD)

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*Presented to:*

**Dr. Kenan Ünlü**  
**Pennsylvania State University**

For creative and impactful contributions to research reactor instrumentation and applications.

## Technical Achievement Award (THD)

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*Presented to:*

**Prof. Michael Z. Podowski**  
**Rensselaer Polytechnic**  
**Institute**

For his ground-breaking technical accomplishments in the modeling and computer simulation of single and multiphase flow and heat transfer.

## 2020 Rockwell Lifetime Achievement Award (RPSD)

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*Presented to:*

**Dr. Jeffrey O. Johnson**  
**Oak Ridge National Laboratory**

For Dr. Johnson's technical leadership in radiation shielding, nuclear nonproliferation missions supporting national and global security, and practical technologies to prevent, counter, and respond to nuclear and radiological terrorism.

## 2020 Rockwell Lifetime Achievement Award (RPSD)

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*Presented to:*

**Dr. X. George Xu**  
**Rensselaer Polytechnic  
Institute**

For Dr. Xu's outstanding achievements in research and technological development involving computational human phantoms and advanced Monte Carlo simulation methods that have made significant impact on the practice of radiation protection and medical physics.



# Student Design Competition (ETWDD)

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The following are the finalists in the undergraduate category  
(in no particular order):

## University of Tennessee Knoxville

*Nuclear Thermal Propulsion Reactor Design and Analysis*

Authors: Alec Cacheris, Brandon Connor, Will Conroy, Aidan Edens

Advisor: Jason Hayward

## University of Illinois, Urbana-Champaign

*Plasma Sustainment and Tin Particle Mitigation in Extreme Ultraviolet Lithography*

Authors: Alp Aktuna, Kaitlyn Butler, Andrew

Fink, Dario Panici

Advisor: David Ruzic

## Purdue University

*Design of a Novel Decision-Making Tool for the Analysis of Protective Actions During a Radiological Release*

Authors: David Champlin, Mark D'Aloia, Emily

Downing, Elizabeth Jaye

Advisor: Shripad Revankar

## University of Sharjah

*Design and Experimental Verification of a Gamma Radiogauge to Detect Water Level in Ballast Tanks in Oil Platforms*

Authors: Eslam A. Ahmed, Jwaher A. Alnaqbi,

Priyonta Rahman

Advisor: Walid A. Metwally

## North Carolina State University

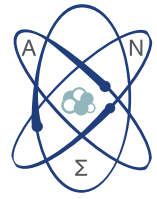
*Design of an Economical Low-Power Fast Spectrum Molten Chloride Reactor*

Authors: Charles Goodman, Lindsay Verrico,

Thomas Thompson, Vincent Novellino

Advisor: Scott Palmtag

# Alpha Nu Sigma National Honor Society



*The Alpha Nu Sigma National Honor Society, established by the American Nuclear Society's Education, Training and Workforce Development Division, recognizes high scholarship, integrity, and potential achievement among outstanding degree-seeking nuclear engineering students at institutions of higher learning. The following individuals have been inducted into the Alpha Nu Sigma National Honor Society in since the last meeting:*

## **Excelsior College- Alpha Nu Sigma**

Mr. Derek Bierer  
Mr. Benjamin Burnett  
Mr. George Li Cheng  
Mr. Jonathan Chilton  
Mr. Nathaniel Glen Cox  
Mr. Jerry Allen Crittenden  
Mr. Zane Anthony DeSaveur  
Mr. Theodore Donald Di Angelo, II  
Mr. Bryan J. Feola  
Ms. Miranda Gegner  
Mr. Warren Anthony Givens  
Mr. Andrew P. Goerres  
Mr. Ian Matthew Hagley  
Mr. Monte Asher Hancock  
Mr. Devon Taylor Hanlon  
Mr. Luke Ermine Hannon  
Ms. Angela Leigh Henderson  
Mr. Jonathan Hines  
Mr. Garrett William Holter  
Mr. Victor Alan Huffstatler  
Mr. Jeremy Lee Hughes  
Mr. Kyle Charles Keller  
Mr. Chad Kitchen  
Mr. Daniel P. Kohlbrenner  
Mr. Joseph E. Kole  
Mr. Corey Sean Murphy, Sr.  
Mrs. Ashley Nicole Port  
Mr. Nicholas Charles Poston  
Mr. Gamaliel J. Rodriguez, Jr.  
Mr. Michael Schulte  
Mr. Kevin Paul Speer

Mr. William Randall Whisenant  
Mr. Austin Jacob Williams  
Mr. Tony Dewayne Williams  
Mr. Michael C. Winsett  
Mr. Jason James Woodworth  
Mrs. Julia Wydra  
Mr. Michael Murray True, Jr.

## **Kansas State University- Alpha Nu Sigma**

Mr. Jace A. Beavers  
Mr. Logan Brockschmidt  
Mrs. Rabab R. Elzohery  
Mr. Rene Fabian Santillana  
Mr. Lucas Alan Wodrich

## **Oregon State University- Alpha Nu Sigma**

Mr. Michael Branco-Katcher  
Mr. Cole Erich Evered  
Ms. Lucia Rebeca Gomez Hurtado  
Mr. Matthew Alexander Hageman  
Mr. Joshua Arthur Handley  
Mr. Keenan Hoffman  
Ms. Rebecca Jaronski  
Mr. Brandon E. Kamiyama  
Mr. Michael Aaron Levy  
Ms. Jillian Lea Newmyer  
Mr. Logan E. Schoening  
Dr. Todd R. Smith  
Mr. Ryan E. Wilson  
Mr. Seth Joshua Youtsey